

by the Engineers. The problems were not wholly solved. There were never enough docks to prevent some loss of time by vessels waiting to dock, but the capacity for handling American cargo was tripled from 10,000 tons per day in the spring of 1918 to 30,000 tons by November 11 and the waiting time of ships was shorter than in commercial practice. There were never wholly adequate railway facilities, but with the help of locomotives and freight cars shipped from this side freight was carried inland about as fast as it was landed. Map 5 shows the main railway lines used by the overseas forces. They connect the principal ports at which the Army fleet docked with the headquarters of the Services of Supply at Tours and with the Toul-Verdun sector, where the American armies operated. The dots represent the principal storage depots of the transportation service.

#### NARROW-GAUGE RAILWAYS AND MOTOR TRUCKS

Railroads carried American supplies from the ports in France to intermediate or advance depots. As map 5 shows, railroad lines roughly paralleled the front. Spurs led up to the front, but beyond a certain distance the standard-gauge railroad did not go. Where the danger of shelling began or where the needs changed rapidly as the battle activity shifted from this front to that, the place of the heavy railway was taken by other means of distributing supplies. First came the narrow-gauge railroad, with rails about 2 feet apart, much narrower than the usual narrow-gauge road in this country. American engineers built 538 miles of these roads, for which 406 narrow-gauge locomotives and 2,385 narrow-gauge cars were shipped from this country, in addition to the standard-gauge equipment.

Beyond the range of the narrow-gauge railway came the motor truck. The truck could go over roads that were under shell fire. It could retire with the Army or push forward with advancing troops. Trucks were used on a larger scale in this war than was ever before thought possible. The American Infantry division on the march with the trucks, wagons, and ambulances of its supply, ammunition, and sanitary trains stretches for a distance of 30 miles along the road.